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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/619,893	07/15/2003	Jerry L. Corkran	08215-301003 / P06-023937	7331
26191	7590	07/16/2004	EXAMINER	
FISH & RICHARDSON P.C. 3300 DAIN RAUSCHER PLAZA 60 SOUTH SIXTH STREET MINNEAPOLIS, MN 55402			OGDEN JR, NECHOLUS	
			ART UNIT	PAPER NUMBER
			1751	

DATE MAILED: 07/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/619,893	CORKRAN ET AL.	
	Examiner	Art Unit	
	Necholus Ogden	1751	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 127-140, 142-145, 148-155 and 157-185 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) See Continuation Sheet is/are allowed.
- 6) ☒ Claim(s) 127-132, 148-153 and 163-174 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>10/03...7/03</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

1. Claims 128, 131, 134, 137, 140, 143, 149, 152, 155, 158, 161, 167, 170, 173 and 177 objected to because of the following informalities: The aforementioned claims state the following BHA, BHT, TBHQ, THBP. It is suggested that applicant completely spell out the components for clarification. Appropriate correction is required.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

3. Claims 135, 138, 144, 159, 162, 176, 180 and 185 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The aforementioned claims depend from independent claims that state a transitional phrase of "consists of" when referring to the dielectric fluid. However, said claims further comprise an antimicrobial additive which does not further limit the claim because the phrase "consists of" is closed to additional ingredients.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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5. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

6. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7. Claims 127, 130, 148, 151, 163, 166, 169 and 172 are rejected under 35 U.S.C. 103(a) as being unpatentable over Clark (1,935,595) in view of Sato et al (4,681,980)

Clark discloses a transformer including a housing and core/coil assembly (see fig. 1), a dielectric insulating fluid surrounding said core/coil assembly, and said fluid comprises a vegetable oil admixed with trichlor benzene (see column 1, lines 15-25).

Clark fails to disclose an antioxidant dissolved into said oil.

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Sato et al discloses an electrical insulating oil, which is suitable for use in capacitors, cables and transformers (see abstract). Sato et al teach that said oils comprises a mixture aromatic olefins, alkyl biphenyls and animal and vegetable oils such as cottonseed oil, which comprises at least 21% of oleic acid, (see column 6, lines 18-37). Sato et al further includes antioxidants, which are also used as antimicrobial components (col. 7, lines 24-28 and applicants specification Page 13, lines 18-19).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the transformer of Clark with a electrical insulating oil that comprises an antioxidant such as those taught by Sato et al for the purpose of reducing the vegetable oil to the exposure of oxygen. Moreover, the dielectric fluid would further benefit by the addition of the antioxidant since they are well known throughout the art to prevent corrosion in metallic components, in the absence a showing to the contrary.

8. Claims 127-132, 148-153 and 163-174 are rejected under 35 U.S.C. 103(a) as being unpatentable over Clark (1,935,595) in view of Sato et al (4,681,980) as applied to claims 127, 130, 148, 151, 163, 166, 169 and 172 above, and further in view of Shedigian (4,511,949).

9. Clark and Sato et al are relied upon as set forth above. Specifically, the combination lacks a teaching of the specific antioxidant.

Shedigian discloses a dielectric fluid for capacitors for use in power line transformers (see column 1, lines 5-10), wherein said fluid comprises alkylated

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biphenyls and antioxidants such as butylated hydroxyl toluene (BHT) (column 1, lines 50-60).

It would have been obvious to one of ordinary skill in the art to include the specific antioxidant of Shedigian to the compositions as described above because Shedigian teaches further advantages of antioxidants such as BHT to act as radical scavengers in dielectric fluids of capacitors and transformers, in the absence of unexpected results.

Double Patenting

10. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

11. Claims 127-140, 142-145, 148-155, 157-185 are rejected under the judicially created doctrine of double patenting over claims 1-27 and 1-27 of U. S. Patent No. 6,037,537 since the claims, if allowed, would improperly extend the "right to exclude" already granted in the patent.

The subject matter claimed in the instant application is fully disclosed in the patent and is covered by the patent since the patent and the application are claiming common subject matter, as follows: A transformer comprising a dielectric fluid consisting essentially of a vegetable oil, an antioxidant and an antimicrobial additive.

Furthermore, there is no apparent reason why applicant was prevented from presenting claims corresponding to those of the instant application during prosecution of the application, which matured into a patent. See *In re Schneller*, 397 F.2d 350, 158 USPQ 210 (CCPA 1968). See also MPEP § 804.

Allowable Subject Matter

12. Claims 133-134, 136-137, 139-140, 142-143, 145, 154-155, 157-158, 160-161, 175, 178-179, 182-184.

Claims 135, 138, 144, 159, 162, 176, 180 and 185 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, second paragraph.


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Necholas Ogden whose telephone number is 571-272-1322. The examiner can normally be reached on M-T and Th-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Yogendra N. Gupta can be reached on 571-272-1316. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Nicholas Ogden
Primary Examiner
Art Unit 1751

no
6-27-04